

**AMENDMENTS TO THE CLAIMS**

1-21. (Cancelled)

22. (New) A process for isolating and/or identifying at least one active chemical substance from a non-equimolar mixture of active or inactive chemical substances, comprising the steps:

- a) adding a target to said mixture and forming a complex target and at least one active chemical substance of the mixture;
- b) separating the complex from the inactive chemical substances of the mixture; and either
- c) liberating and isolating and/or identifying at least one active chemical substance from the separated complex; or
- d) identifying at least one active chemical substance of the mixture by subtracting from a chromatogram of the mixture of active and inactive chemical substances a chromatogram of the mixture of inactive chemical substances which is obtained after separation of the complex.

23. (New) The process according to claim 22, wherein the adding of the target to said mixture is performed in a solution, a suspension or a dispersion.

24. (New) The process according to claim 22, wherein the adding of the target to said mixture is performed in an aqueous solution.

25. (New) The process according to claim 24, wherein a pH value of the aqueous solution is stabilized with the aid of a buffer.

26. (New) The process according to claim 22, wherein said complex is created by a bond between the at least one active chemical substance and the target.

27. (New) The process according to claim 22, wherein the bond is a covalent or non-covalent bond.

28. (New) The process according to claim 22, wherein the non-covalent bond is formed by hydrogen bridges, electrostatic interaction, metal complexation, interaction of lipophile groups of the active chemical substance with the target, dipole-dipole interactions, or cation- $\pi$  interactions.

29. (New) The process according to claim 22, wherein the separation of the complex from the inactive chemical substances is performed by ultrafiltration or ultracentrifugation.

30. (New) The process according to claim 22, wherein said isolation and/or identification of the at least one active chemical substance of the separated complex is accomplished by at least one method selected from the group consisting of HPLC, electro-chromatography, electrophoresis and coupling techniques.

31. (New) The process according to claim 22, wherein said identification of the at least one active chemical substance of the mixture is accomplished by at least one method selected from the group consisting of HPLC, electro-chromatography, electrophoresis and coupling techniques.

32. (New) The process according to claim 30, wherein said coupling techniques are LCMS or MS-MS.

33. (New) The process according to claim 31, wherein said coupling techniques are LCMS or MS-MS.

34. (New) The process according to claim 30, wherein said method is microcapillary or nano-HPLC.

35. (New) The process according to claim 31, wherein said method is microcapillary or nano-HPLC.

36. (New) The process according to claim 22, wherein the separation of the at least one active chemical substance from said mixture is performed by preparative HPLC, electrochromatography or electrophoresis.

37. (New) The process according to claim 22, wherein said mixture is a substance library obtained from synthetic or combinatorial chemistry, or an extract of a natural product.

38. (New) The process according to claim 22, wherein said mixture is a chemically modified extract of a natural product.

39. (New) The process according to claim 22, wherein said mixture is a mixture of various natural product extracts.

40. (New) The process according to claim 22, wherein said mixture contains at least 50 different chemical substances.

41. (New) The process according to claim 22, wherein the target is a protein.

42. (New) The process according to claim 22, wherein the target is an enzyme, a receptor, an antibody, a biological membrane or a cell.

43. (New) The process according to claim 22, wherein the target is selected from the group consisting of thrombin, trypsin and  $\beta$ 2-adrenoreceptor.